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Progress made in the implementation of Economic and Social Council resolution 2001/12 on illicit trafficking in protected species of wild flora and fauna

Report of the Secretary-General**

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** The submission of the report was delayed because of extensive consultations undertaken with relevant organizations.

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I. Introduction

1. In its resolution 2001/12 of 24 July 2001, entitled "Illicit trafficking in protected species of wild flora and fauna" the Economic and Social Council requested the Secretary-General to prepare, within existing resources or drawing upon extrabudgetary contributions, in coordination with other competent entities of the United Nations system, a report analysing the domestic, bilateral, regional and multilateral legal provisions and other relevant documents, resolutions and recommendations dealing with the prevention, combating and eradication of illicit trafficking in protected species of wild flora and fauna by organized criminal groups. The Council also requested the Secretary- General to prepare, within existing resources or drawing on extrabudgetary contributions, in coordination with other competent entities of the United Nations system, a report analysing the domestic, bilateral, regional and multilateral legal provisions and other relevant documents, resolutions and recommendations dealing with illicit access to genetic resources and also the extent to which organized criminal groups are involved therein.

2. Given the limited resources available to the Centre for International Crime Prevention, as well as the limited time available to embark on a fully fledged study, the main purpose of the present progress report is to provide the Commission with a preliminary overview of the work of relevant organizations regarding illicit trafficking in protected species of wild fauna and flora and illicit access to genetic resources. It also provides a brief assessment of the scope and nature of the type of crime and the problems of enforcement involved (for the part concerned with trafficking), and of the solutions currently under discussion (for the part concerned with access), as well as a short description of the involvement of organized criminal groups (for both parts). Numerous international organizations, including the Food and Agriculture Organization of the United Nations (FAO), the Secretariat of the Convention on Biological Diversity, the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the Customs Cooperation Council (also called the World Customs Organization) and the International Criminal Police Organization (Interpol), as well as several non-governmental organizations, such as the World Conservation Union and the wildlife trade monitoring programme known as TRAFFIC,[1] have been approached and requested to supply any printed material that they may consider relevant to the mandate emanating from the Economic and Social Council.

II. Illicit trafficking in protected species of wild flora and fauna

A. Preliminary overview of the work of the main relevant organizations

1. Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora

3. The secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora has its headquarters in Geneva and is responsible for monitoring the implementation of the Convention, which was opened for signature on 3 March 1973. The Convention entered into force on 1 July 1975, was subsequently amended, and currently has 157 parties. It regulates international trade in specimens of species of wild fauna and flora, including the export, re-export and import of live and dead animals and plants and of parts and derivatives thereof. Trade in such specimens is based on a system of permits and certificates, which can be issued if certain conditions are met, and which have to be presented before consignments of specimens are allowed to leave or enter a country. The animal and plant species subject to different degrees of regulation are listed in three appendices to the Convention. Appendix I includes some 800 animals and plants threatened with extinction and for which trade must be subject to particularly strict regulation and only authorized in exceptional circumstances. Appendix II includes species that are not necessarily threatened with extinction but may become so unless trade is strictly regulated. Appendix III contains species that are subject to regulation within the jurisdiction of a party to the Convention. Contrary to the listing of species in appendices I and II, which requires a two-thirds majority decision by the Conference of the Parties to the Convention, species in appendix III can be listed by parties on their own initiative. Parties are required to submit annual reports regarding trade, as

well as biennial reports on legislative, regulatory and administrative measures taken to enforce the provisions of the Convention.

4. According to article VIII, paragraph 1, of the Convention, parties shall take in their domestic legislation appropriate measures to enforce the provisions of the Convention and prohibit trade in specimens in violation thereof, including measures: (a) to penalize trade in, or possession of, such specimens, or both; and (b) to provide for the confiscation or return to the State of export of such specimens. That does not necessarily mean that Parties have to consider illegal trade in wildlife as a criminal offence; they can instead choose purely administrative measures. The Convention can only be effective to the extent that member States enact and enforce the specific provisions. Domestic legislation is reviewed and assistance provided under the National Legislation Project.[2] According to information provided by the secretariat, 136 out of 146 Member States had been evaluated by 2000. Of those, only 37 (26 per cent) achieved the highest level of compliance with the provisions of the Convention; 47 Member States (32 per cent) did not meet the criteria even partially.[3]

5. For each meeting of the Conference of the Parties, the secretariat of the Convention prepares a review of alleged infractions of the Convention. Those reviews are intended to provide the parties with an overview of illicit trade and to identify significant problems concerning the issuance and acceptance of documents related to the Convention. An important initiative has been the development by the secretariat of a computerized system, known as TIGERS (Trade Infraction and Global Enforcement Recording System), to process reports of wildlife crime and illicit trade, identifying crime trends, methods and routes from a variety of sources. By monitoring the implementation of the Convention, the secretariat has established close working relationships, not only with regional and national law enforcement agencies, but also with the World Customs Organization and Interpol. The secretariat also has a record of engaging in verification and assessment missions to States parties to the Convention. The most recent mission, in conjunction with a member of the Interpol Wildlife Crime Working Group, was to the Russian Federation, where an in-depth study was made of the caviar trade. A confidential report has since been supplied to government agencies in the Russian Federation, addressing such issues as the following: export of caviar to international markets; control of domestic trade in caviar; anti-poaching activities; tackling organized crime; the possible involvement of legal traders in illicit activities; and legislation. Another recent innovation under the Convention is the Tiger Enforcement Task Force, which has identified the following areas upon which to concentrate its efforts initially: the gathering, analysis and dissemination of intelligence; guidance for specialized wildlife law enforcement units; and training.[4]

2. World Customs Organization

6. On 4 July 1996, the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and the secretariat of the World Customs Organization signed a memorandum of understanding establishing a legal framework for international cooperation between the two organizations, providing for the controlled exchange of information and the development of synergies between customs and management authorities at the national level, and promoting measures to raise awareness as well as training for the relevant services.[5] The strategic position of customs, at frontier points, makes it the best-placed administration to check that the Convention is being properly applied. The secretariat of the Convention is represented at all relevant meetings of the World Customs Organization and the Interpol Wildlife Crime Working Group. The Organization has recently merged specialized groups like the World Customs Organization/Convention working group into its larger "Protection of Society" working group, which covers a range of cross-border and international criminal activities, including money-laundering and trafficking in drugs, weapons, cultural items, wildlife, stolen vehicles etc. That is the main group that the secretariat of the Convention currently works with, although it has also cooperated with the Harmonized System Directorate and the Scientific Subcommittee of the Organization. Customs officers attend national and international training seminars on the Convention organized by the secretariat of the Convention, the secretariat of the Organization and certain States. They have specific documentation and training packages in several languages prepared by the organizers. The secretariat of the Convention also has many customs specialists who help to train their colleagues and raise awareness.

7. Moreover, the secretariat of the World Customs Organization assists States members of the Organization by disseminating information and intelligence through the system of Regional Intelligence Liaison Offices using the customs enforcement network. The Organization has 11 such Offices throughout the world, with 120 customs administrations being linked through the system. The Regional Intelligence Liaison Offices compile seizure data relating to customs offences from all sources, analyse national, regional and global seizure information, and identify new or unusual smuggling trends and methods. The customs enforcement network is a system for combating customs offences through the analysis and communication of customs information. It is based on Internet technology and provides an effective, secure, inexpensive and round-the-clock system. The database is protected, access only being granted to recognized addresses, and the forwarded information is encrypted. It is an effective way to exchange information in a secure environment between customs administrations throughout the world.

8. The World Customs Organization also provides legal instruments to its members for the exchange of information and cooperation between customs administrations at international, regional and bilateral levels. The Nairobi Convention, signed in June 1977 and ratified by 40 States members of the Organization, is an international convention on mutual administrative assistance for the prevention, investigation and repression of customs offences. Other relevant instruments include the Model Bilateral Agreement, and recommendations and resolutions of the Organization.

9. The above-mentioned instruments provide additional tools for strengthening international cooperation, not only within the customs community, but also with other partners at all levels. The implementation of such enforcement tools increases the effectiveness of customs administrations, facilitating their daily action and encouraging dynamism and improved performance.

3. International Criminal Police Organization

10. Within Interpol, a resolution requesting States members to cooperate in cases related to wildlife crime was adopted at the Interpol General Assembly in 1976. A wildlife subgroup (now entitled Wildlife Crime Working Group) was established in 1993.[6] The objectives of the Working Group are to improve the exchange of information (including criminal intelligence) on persons and companies involved in the illegal trade in wild flora and fauna; to support investigations into illegal activities related to wildlife crime by improving national, regional and international law enforcement; to exchange information on methods and trends in such illegal trade, with a view to developing a more proactive approach; and to develop training and information documents needed for the investigators. A formatted ECO-message, including fields for data that are essential for effective assessment and analysis of supplied information, has been created to facilitate the compilation of information on environmental crime in the database of the Interpol secretariat. A group of experts has finalized a comprehensive training package, and training courses have already been conducted, with regional training courses planned for the future. The cooperation between Interpol and the secretariat of the Convention has resulted in a memorandum of understanding, signed in October 1998. Although the memorandum of understanding is not formally binding on the national authorities, it urges the authorities of the secretariat of the Convention and law enforcement agencies—police and customs—to work closely together in each country in order to combat wildlife crime more effectively. A practical guide on cooperation between the management authorities of the secretariat and Interpol has been distributed in English, French and Spanish to the appropriate authorities.

4. European Union

11. The European Union implemented the obligations arising from the Convention by its Regulation No. 3626/82, which entered into force on 1 January 1984. That Regulation has been replaced by Council of the European Union Regulation No. 338/97 on the protection of species of wild fauna and flora by regulating trade therein, which, since 1 June 1997, provides for a stricter control and sanctions[7] regime. The main efforts have been directed towards endangered species crossing external borders of the European Union. The directive has to ensure more harmonized wildlife trade policies and better trade controls among the 15 States members of the European Union. The European Commission coordinates an enforcement working group of the European Union,

which meets annually and brings together police, customs and Convention authorities from its member States.

5. Lusaka Agreement Task Force

12. The Lusaka Agreement of 8 September 1994 was the culmination of the first meeting of African wildlife enforcement officers, held in Lusaka in 1992. The meeting resolved to set up a mechanism, the Lusaka Agreement Task Force, to facilitate cooperation among wildlife law enforcement agencies in the various countries. The Parties to the Agreement, which came into effect in December 1996, are the Governments of the Congo, Kenya, Lesotho, Uganda, the United Republic of Tanzania and Zambia. Ethiopia, Swaziland and South Africa are signatories. Each Party[8] has the obligation, individually and jointly, to take appropriate measures, in accordance with the Agreement and in cooperation with the Task Force, to investigate and prosecute cases of illegal trade.[9] The Task Force, which has its headquarters in Nairobi and is referred to by many as "African Interpol" for wildlife, wants to create consistency in the way wildlife criminals are dealt with in the region. It has meanwhile been involved in investigating and presenting evidence of illegal trade in wildlife species in Africa, resulting in major ivory seizures.

6. North American Agreement on Environmental Cooperation

13. When Canada, Mexico and the United States of America strengthened their economic ties through the North American Free Trade Agreement, they also pledged to undertake a new environmental partnership. In 1993, the three States signed the North American Agreement on Environmental Cooperation and created the Commission on Environmental Cooperation. Among the objectives of the North American Agreement on Environmental Cooperation is the building of regional cooperation for the conservation, protection and enhancement of the environment. The North American Agreement on Environmental Cooperation also commits the parties to the effective enforcement of their respective environmental laws, including those protecting wild flora and fauna. Responding to those commitments, the Commission on Environmental Cooperation, in 1995, established an Enforcement Cooperation Program to provide a forum for regional cooperation, exchange expertise, build enforcement capacity and explore alternative approaches to effective enforcement. The Council of the Commission on Environmental Cooperation constituted a North American Working Group on Environmental Enforcement and Compliance Cooperation to serve as a forum for regional cooperation. The North American Wildlife Enforcement Group is a network of senior wildlife enforcement officials and participates as a member of the Working Group; it provides guidance in identifying priorities for regional cooperation in working to protect wildlife across the continent, in particular with respect to commitments under the Convention.

B. Assessment of the scope and nature of the crime

14. In the absence of an exhaustive and reliable register of wildlife trafficking, together with indicators of the number of undetected cases,[10] an assessment of the scope and nature of the problem becomes difficult. As there is seldom a complainant, enforcement agents can only record detected cases or seizures; thus, the view of the situation as a whole is flawed. However, recent United States estimates put the profits of wildlife trafficking somewhere between 2 billion and 3.5 billion United States dollars ($) per year.[11] Worldwide, legal as well as illegal trade in wild animals (dead or alive) and plants, and in by-products such as ivory, skins, coral and medicines, is thought to represent an annual turnover of several billion dollars. The World Wildlife Fund estimates the total at $20 billion.[12]

15. Available statistics on the world trade in animals, plants and their products indicate that there are countries that are virtually exclusively exporters (or producers), and others that are essentially importers (or consumers).[13] The latter are often re-exporters of finished products. The exporting countries are in Africa, Asia, Central and South America and Eastern Europe; the consumers are in, East Asia (China (Hong Kong Special Administrative Region), Japan, Republic of Korea and Singapore), Western Asia, North America and Western Europe. Some countries (Canada, Australia, South Africa) are both consumers and producers.

16. Live animals are hidden in secret compartments, in shipping containers, under clothing or in luggage,

and smuggled across international borders, or are openly declared at the border, but accompanied by false paperwork to make their importation appear legal. The end purchasers of living animals are very often people who are either keepers of live pets or collectors of endangered species such as falcons or exotic reptiles.

17. Wildlife animals and their parts are smuggled for commercial or personal use and serve as food (for example, bush meat and caviar), luxury products (such as shatoosh shawls from the wool of the Tibetan antelope), medicine (more particularly the traditional Chinese medicine using, for example, rhinoceros horn) or cosmetics.

18. The threat posed by wildlife trade is being increasingly recognized. By way of example, according to the findings of the first full report on animal trafficking, produced by the Brazilian National Network against the Trafficking of Wild Animals,[14] wildlife trafficking in Brazil has reached unprecedented levels. Birds represent up to 82 per cent of the illegal trade, while mammals represent 14 per cent and snakes 3 per cent. A government statement showed the number of animals found by the police had risen to 61,182 in 2000, up from 23,100 in 1998. But the survey, which includes detailed maps of trafficking routes for live cargoes of everything from rare parrots to deadly snakes, noted that only 0.45 per cent of the total amount of animals smuggled each year are intercepted by the police. Moreover, Colombia and Peru are home to the favourite fauna of animal traffickers: Peru is a prime hunting ground for iguanas, crocodiles and anacondas; and, in Colombia, poaching has driven several parrot species to the brink of extinction.[15] Argentina, Mexico, Paraguay and Uruguay, on their side, seem to serve as transit points for Asia, Europe and the United States. African, Asian and Eastern European countries face the same problems, and are afraid to lose their biodiversity.

C. Involvement of organized criminal groups

19. Preliminary research findings give evidence of the highly organized character of the illegal trade in protected species.[16] Trafficking in animals and plants is less costly in investment and less risky than drug trafficking, though very lucrative. Powdered rhinoceros horn can be worth more than the equivalent weight of heroin or cocaine. Rare parrots can fetch tens of thousands of United States dollars on the black market. Several observers have argued that a low level of vigilance and a modest level of penalties applied have all attracted the attention of criminal organizations.

20. Various sources demonstrate illicit trafficking links with traditional criminal organizations. Illegal trade in ivory has long been recognized as helping fund rebel groups in parts of Africa, and there is some suspicion that illegal trade in wildlife may be used to fund terrorist groups. The secretariat of the Convention is aware of several areas in Asia and Africa where insurgent groups engage in illegal hunting for profit and impose taxes on wildlife parts and derivatives as they pass illegally across borders. Wildlife experts[17] claim that Chinese, Japanese, Italian and Russian gangsters are heavily involved in illegal wildlife trade. Triad societies such as the Wo Shing Wo group and 14K are smuggling ivory, rhino horn, shark fin and abalone into South Africa.[18] Galster[19] refers to a well-financed and highly organized illegal trade in whale meat. The Neapolitan Mafia is said to be behind illegal trading in endangered parrots.[20] Some of the poachers of tigers[21] and bears[22] are believed to have links to organized criminal groups in the Russian Federation. Moreover, approximately 90 per cent of the sturgeon caught in 1995 in the Northern Caspian basin seem to be handled by those groups.

21. There exist also examples of a combination of wildlife smuggling and drug trafficking, especially in Latin America. It has been claimed that the Cali drug cartel in Colombia smuggled mixed shipments of drugs and wildlife products into the United States. Galster[23] supports that claim by presenting undercover investigations undertaken by the Endangered Species Project, which found criminal organizations with tentacles to almost every part of the world.[24] The increased role of Mexican drug dealers was also noted. The secretariat of the Convention review of infractions also makes reference to the combined smuggling of parrots and drugs from Côte d'Ivoire to Israel.[25] The Brazilian National Network against the Trafficking of Wild Animals[26] indicates that, out of an estimated 400 criminal rings smuggling animals, 40 per cent were involved in other criminal activities, mainly drug trafficking. One famous case, in which cocaine was found stuffed into live boa constrictors being shipped abroad serves as an example.[27] The linkage between

animal trafficking and drugs smuggling is confirmed by agents from the United States Fish and Wildlife Service, who state that smugglers often trade illegal drugs for endangered animals in cashless transfers,[28] creating thereby a special form of money-laundering.

22. However, other sources believe that those criminal organizations that traditionally deal in drugs, arms, human trafficking and contraband are only marginally involved in the above-mentioned forms of criminality at the current stage. According to the national report of the United Kingdom of Great Britain and Northern Ireland to the meeting of the seven major industrialized countries (Group of Seven) and the Russian Federation held in June 1999,[29] there is little substantial evidence to support the claim that organized crime groups have already fully embarked on environmental crime. But, even if that were the case, given the low level of detection and modest penalties, it is unlikely that organized crime will leave that business unattended in the future.

23. Most wildlife smugglers may still operate within their own domain, which means that there is a hidden market beneath the legitimate trade in exotic animals and plants, and that there exists another type of emerging criminal organization focusing exclusively on wildlife products.

24. In sum, when considering such crime, it is essential to bear in mind the diversity of ways in which the perpetrators can be organized. Indeed, there are several different forms that criminal organizations involved in the trade in endangered species can take:

(a) The general organized crime group that has a wide portfolio of activities and that includes trafficking in endangered species as merely one of those activities. The involvement of such groups in that particular illegal market can be infrequent, sporadic or sustained, depending on the calculation of risk and profit and the attractions of alternative markets and products. Chinese criminal organizations, for example, tend to traffic in endangered species on a regular basis, partly because of the demand for products derived from those species for use in traditional Chinese medicines and remedies;

(b) Smuggling networks that traffic in endangered species as merely one among several illegal, regulated or stolen products. In the mid-1990s, for example, Global Survival Network, a non-governmental organization based in the United States, started to focus on the targeting of women from the former Soviet Union when it realized that the same groups that were targeting Siberian tigers were also moving women to Western Europe and elsewhere for commercial sex;

(c) Networks that specialize in smuggling in endangered species rather than engaging in a much broader range of criminal activity. These are likely to follow the model of moving from licit import and export of animals and birds to the illegal side of the trade.[30] That process can be gradual or abrupt;

(d) The key point about all of those criminal organizations, however, is that they depend on the connivance and collusion of ostensibly legitimate people and groups if they are to operate effectively in illegal markets. Indeed, much of the demand comes from private citizens or unscrupulous zoos or parks more concerned about the popularity than the legality of their animal attractions.

D. Assessment of enforcement

25. Investigations worldwide have led to large Convention-related seizures of live animals and dead specimens and products. However, the threat posed by the illegal wildlife trade is not yet well understood by government policy makers, the courts or the public.

26. Penalties for violations of individual wildlife trade laws vary considerably among States members of the secretariat of the Convention. China has sentenced several wildlife criminals to death, and the secretariat knows of at least two criminals in China who were sentenced to life imprisonment in 2001. In the United States, a caviar company was fined over $10 million. But, while wildlife smugglers can face imprisonment of up to seven years[31] in the United Kingdom, the maximum penalty for infringement of the Convention is three months in Belgium.[32] Moreover, in Brazil only fines are administered, and, rarely, a one-year sentence.[33] Furthermore, as has been mentioned already, in some member States, illegal trade in wildlife is not even considered a criminal offence and is treated under administrative law.

27. Since violations of wildlife trade regulations are often deemed insignificant, appropriate sanctions are rarely used. In addition, as illegal wildlife trade is

often considered only a petty crime, smugglers get away with just minor warnings. Furthermore, most national systems may be in need of additional personnel resources, increased public awareness and continued education of enforcement staff regarding why those cases are deserving of attention, in order to enhance their expertise and intervention capacity.

28. Investigation of wildlife crime needs to be adapted to the organized character of that type of crime. The secretariat of the Convention believes that the use of trained dogs to detect musk and musk products in cargo and passenger baggage, especially given the pungent smell of raw musk, could prove very effective, if deployed at relevant border points.[34] DNA profiling is regularly used to combat illicit trade in caviar, and the secretariat of the Convention works actively to increase awareness of the way in which forensic science supports law enforcement officials. The use of methods such as forged documents and carefully planned trade routes also call for the use of specialized investigation and prosecution units.

29. The trade is clearly a global one involving countries of origin as well as transit countries, where false certificates and repackaging are conducted and the final distribution organized. Moreover, the new marketplace provided by the Internet appears already to have been used extensively for illegal trade in endangered species. Therefore, such criminality cannot be addressed effectively by any unilateral effort, no matter how effective, but can only be successfully countered through international cooperation.[35]

III. Illicit access to genetic resources

A. Relevant legal framework

1. International conventions and treaties

(a) Convention on Biological Diversity

30. The Convention on Biological Diversity of 5 June 1992 has so far been ratified or acceded to by 182 parties.[36] The secretariat of the Convention has its headquarters in Montreal, Canada, and is responsible for assisting the parties with the implementation of the Convention and the coordination of activities with other international bodies. The specific functions of the secretariat are set out in article 24 of the Convention.

31. Article 2 of the Convention defines "genetic resources" broadly to include all "genetic material of actual or potential value". "Genetic material" in turn, is defined as "any material of plant, animal, microbial or other origin containing functional units of heredity". It should be noted that the Convention does not provide a definition of "illicit access". Article 15 of the Convention only sets the basic framework within which access to genetic resources is to take place.[37] Activities subject to the provisions relating to genetic resources must also be consistent with other provisions of the Convention, such as article 8 (j), calling for protection of knowledge, innovations and practices of indigenous and local communities. Traditional knowledge associated with biological resources is an intangible component of the resource itself, because such knowledge provides leads for the development of useful products and processes, which save investments of time and money in research and product development by modern biotechnology industry.

32. The provisions of the Convention calling for access to genetic resources "on mutually agreed terms" strongly suggest that access and benefit-sharing arrangements will be a primary vehicle for obtaining access to genetic resources and for sharing the resulting benefits, including technologies. The terms of the Convention acknowledge that a range of actors may be involved in access and benefit-sharing, including local and indigenous communities, holders of traditional knowledge, scientific and academic institutions and the private sector. The requirements of mutually agreed terms and prior informed consent may be interpreted to apply to all of those players.

(b) International Treaty on Plant Genetic Resources for Food and Agriculture

33. As it has been stressed by the FAO Commission on Genetic Resources for Food and Agriculture, there exist substantial differences between wild genetic resources and agricultural genetic resources. Crops and domestic animals are widely shared around the world, and the value of the resources lies in the intra-specific diversity, which is the basis of crop and animal improvement.

34. Therefore, on 2 November 2001, FAO adopted, in keeping with the Convention on Biological Diversity, a binding International Treaty on Plant Genetic Resources for Food and Agriculture. The Treaty

includes a multilateral system of facilitated access and benefit-sharing (articles 10-13) for "any material of plant origin, including reproductive and vegetative propagating material, containing functional units of heredity" listed in the annex to the Convention. The concept of farmers' rights set out in article 9 is analogous to the terms of article 8 (j) of the Convention on Biological Diversity. The Treaty will enter into force upon ratification by 40 countries.

2. Regional initiatives

35. In response to article 15 of the Convention on Biological Diversity, regional initiatives have been undertaken to assist States in the respective regions in implementing article 15 of the Convention. Those regional approaches include: Decision 391 of the Andean Community on a common regime on access to genetic resources; the model legislation of the Organization of African Unity for the protection of the rights of local communities, farmers and breeders and for the regulation of access to biological resources; and the draft Association of South-East Asian Nations (ASEAN) framework agreement on access to biological and genetic resources.

(a) Decision 391 of the Andean Community on a common regime on access to genetic resources

36. Decision 391 of the Andean Community,[38] adopted on 2 July 1996 by the Commission of the Andean Pact for Bolivia, Colombia, Ecuador, Peru and Venezuela, has become an example for international law and policy development regarding access to genetic resources and the protection of the accumulated knowledge of indigenous peoples. That Decision introduces the common system on access to genetic resources with a view to: (a) establishing conditions for a just and equitable participation in the benefits generated from access; (b) establishing the basis for the recognition and valuation of genetic resources and their derived products, as well as of their intangible components, particularly in the case of indigenous communities; (c) promoting the conservation and sustainable use of biodiversity; (d) promoting the development and enhancement of local, national and regional scientific, technical and technological capacities; and (e) strengthening the negotiating capacities of Member States (article 2).

(b) African model legislation for the protection of the rights of local communities, farmers and breeders and for the regulation of access to biological resources

37. On the basis of the approach of the Andean Community, the Organization of African Unity developed, in September 2000, model legislation on community rights and access to biological resources in order, as stated in the preamble, to implement article 15 and article 8 (j) of the Convention on Biological Diversity. As in Decision 391 of the Andean Community, the rights of indigenous communities and local farmers and breeders to decide on access to resources on their territories or lands, as well as to their knowledge, innovations and practices, receive special attention.

(c) Association of South-East Asian Nations framework agreement on access to biological and genetic resources

38. The States members of ASEAN prepared, in February 2000, a framework agreement to ensure that access regulations within the region are uniform and consistent. The draft text mentions explicitly that effective participatory measures for the granting of prior informed consent up to the local level have to be granted (article 2).

3. National measures

39. In addition to those regional initiatives, approximately 40 States have, or are in the process of developing, appropriate legislative, administrative or policy measures governing access to genetic resources in their territories and the equitable sharing of benefits arising from their use.

40. In sum, most exchange of genetic resources is regulated—where it is regulated—under individual contractual instruments, enforceable under private law. There is no international agreement that defines certain actions as criminal.

B. Preliminary assessment of problems encountered

41. Access goes together with the sharing of benefits. Although the sharing of benefits is one of the three main objectives of the Convention, much work still

needs to be done in the implementation of national systems for access to genetic resources and in the development of fair and equitable access and arrangements for the sharing of information.

1. Absence of prior informed consent and violation of mutually agreed terms on the sharing of benefits

42. The Governments of several States, together with various non-governmental organizations, are concerned about the serious impact of what is considered biopiracy—the exploration, extraction and screening of biological diversity and indigenous knowledge for commercial, genetic and biochemical purposes by patenting and mapping chromosomes of genetic resources without informing, consulting, acknowledging and duly compensating provider countries, including their indigenous and local communities. While bioprospecting only identifies biological resources and traditional knowledge with commercial potential, biopiracy appropriates those resources and knowledge or privatizes them for commercial gain without obtaining prior informed consent or awarding just compensation.

43. By way of example, the case of Ayahuasca, a plant cultivated by indigenous communities for religious and medicinal purposes throughout the Amazon, can be mentioned. A student in pharmacology brought the plant from Ecuador to the United States in the mid-1980s and applied for a United States patent, which was awarded in 1986. The indigenous communities heard about the existence of the patent in 1994. A request for re-examination was filed to the United States Trademark and Patent Office in March 1999 and the patent was annulled shortly thereafter.[39] The Ayahuasca case was not unique. In 1994, a university in the United States patented a variety of the indigenous grain quinoa, long used by Andean farmers. Because of concerns among exporters in Bolivia about the potential impact of the patent on their future production and exports to the United States, a campaign was initiated and ended in 1998, when the University dropped the patent. Other examples can be given: the plant sangre de drago (cultivated by indigenous people in Central and South America), West African sweet genes, Indian turmeric and several uses of the neem tree, well known and widely used in Asia and East Africa, have been patented by large pharmaceuticals.

44. It has, however, to be said that the public often has a very unreal picture of the value of genetic resource samples. While a particular species, if a biomedicine is found in it, synthesized and patented, may potentially provide a product with great commercial value, very few plants do. The United States delegation at a recent meeting of the Genetic Resource Committee of the World Intellectual Property Organization (WIPO) noted that, in bioprospecting, only one sample in 10,000 merited more than an initial screening, which was followed by enormous development and regulatory costs.[40]

2. Intellectual property rights over products developed using genetic resources and traditional knowledge

45. The Convention on Biological Diversity does not provide a clear guide as to how intellectual property rights should be addressed in access agreements, although most of the problems are linked to the question of intellectual property rights over products developed using resources provided under the agreement. There is considerable confusion in the international debate concerning intellectual property rights and genetic resources.

46. The question whether patents can be granted on products developed out of genetic resources is highly controversial, as reflected in the following points:

(a) With regard to the International Convention on the Protection of Industrial Property (Paris Convention) of 1883, of the more than 100 signatory States, as at 1988, 53 statutorily excluded plants and 54 excluded animals from protection.[41] Those exercising the right of exclusion included the States of the European Patent Convention, as well as a number of developing countries,[42] which adopted the WIPO Model Law for Developing Countries on Inventions, volume I, dealing with patents. Both instruments contain exclusions for patents for "plant or animal varieties and the essentially biological processes for the production of plants and animals". That language has proven ambiguous because the definitions of "varieties" and "essentially biological processes" have become unclear in the era of genetic engineering;

(b) The conclusion of the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of 15 April 1994[43] has complicated the situation. According to

article 27, paragraph 3 (b), only plants and animals other than micro-organisms and "essentially biological processes for the production of plants and animals" may be excluded from patent protection. The TRIPS Agreement provides minimum standards of protection for patents, while States members of the World Trade Organization are free to grant a higher level of protection under their national laws. Thus, countries like India can deny patents on life forms, except on micro-organisms and microbiological and non-biological processes, in accordance with the provisions of the TRIPS Agreement. At the same time, if another country, for example, the United States, chooses to grant patents on plants or other life forms, India cannot object. Nevertheless, such patents will have force only in the United States and cannot be enforced in India, as patents are granted under national patent laws and have territorial application only;

(c) The compatibility of the TRIPS Agreement with the Convention on Biological Diversity is being considered in the context of discussions in the Council for TRIPS regarding the revision of the Agreement. The World Trade Organization Ministerial Declaration adopted in Doha on 14 November 2001 instructs the Council for TRIPS, in pursuing its work programme, to examine the relationship between the TRIPS Agreement and the Convention on Biological Diversity;

(d) Several cases have been reported in which patents already granted were challenged, mostly because the existence of traditional knowledge showed that the invention was not novel. In addition to the Ayahuasca and quinoa cases cited above, the turmeric powder case should also be mentioned,[44] in which the Indian Council of Scientific and Industrial Research succeeded in 1997 in convincing the United States Patent and Trademark Office to revoke a patent granted to two United States scientists on the use of turmeric powder as a healing agent. The United States Patent and Trademark Office ruled that using the popular spice for medicinal purposes was not a new "invention" but an Indian practice that had existed for millennia. The written documentation produced by the Indian Council of Scientific and Industrial Research referred to ancient Sanskrit texts and a paper published in 1953 in the *Journal of the Indian Medical Association*. Similarly, the patent acquired by an American firm for a fungicide, derived from the seeds of the neem tree, was revoked by the European Patent Office in May 2000 on the grounds that it was not a new technology;[45]

(e) The task of revoking a patent is not impossible, but it remains a daunting task, while being also expensive and time-consuming. Several States and non-governmental organizations have therefore claimed the right to use appropriate legal and institutional means to ensure recognition of the rights of indigenous and local communities to their traditional knowledge based on biological resources at the international level. At the meeting of the World Trade Organization Committee on Trade and Environment held on 5 and 6 July 2000,[46] India presented a paper on "Protection of biodiversity and traditional knowledge", calling for international action to counter biopiracy and to promote the sharing of benefits in cases where the use of genetic resources is legitimate. The paper drew support from a number of other countries, including Brazil, Cuba, Malaysia and Peru, which endorsed the need for international action to ensure the establishment of minimum multilateral standards to protect traditional knowledge.

47. As far as agricultural resources are concerned, the International Treaty on Plant Genetic Resources for Food and Agriculture of 2001 exempts the world's principal food crops from the rules relating to intellectual property rights. It is agreed that intellectual property rights cannot be claimed on material in the form received under the multilateral system of facilitated access and benefit-sharing established by the Treaty.[47] If a product that incorporates material accessed from the multilateral system is commercialized, an equitable share of the benefits has to be paid to a trust account. Such a payment is only mandatory if the product is not fully accessible for further research and breeding; in the case of free use by researchers and breeders the payment is voluntary.[48]

C. Possible solutions currently under discussion

1. Establishment of minimum standards to protect traditional knowledge

48. Despite the foregoing observations, intellectual property rights could still serve as a very useful tool to ensure, for example, benefit-sharing through joint ownership and the sharing of royalties arising from the

exploitation of patents. It has been noted in a document prepared by the secretariat of the Convention on Biological Diversity that intellectual property rights can contribute to the implementation of relevant obligations under the Convention.[49] In order to do so, applications for intellectual property rights need to be completed with a requirement that relevant provisions of the Convention have been followed with respect to prior informed consent and mutually agreed terms, as well as with a requirement to disclose the origin of genetic resources and/or the traditional knowledge used. Decision 391 of the Andean Community[50] provides a good illustration of how those issues can be addressed. Such a disclosure of the use of traditional biodiversity-related knowledge may provide grounds for not granting a patent. Since the patenting process normally requires the description of the invention and the background knowledge on which it is based, patent examiners could reject a patent application if it were found that previous knowledge in that area showed that the invention was not novel.

49. The Conference of the Parties to the Convention on Biological Diversity[51] invited organizations such as WIPO to analyse the issue of including a provision of information on the origin of genetic resources, if known, when submitting applications for intellectual property rights, including patents. An Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore was founded, and began discussing the development of model intellectual property clauses for contractual arrangements on access to genetic resources and benefit-sharing. WIPO has also created a Traditional Knowledge Task Force to study a draft Traditional Knowledge Resource Classification and its proper relationship to the International Patent Classification.

50. In addition, a number of Governments (including the member States of the Andean Community in accordance with Decision 391) are of the view that there is a need to develop sui generis systems for the protection of traditional knowledge.[52] The first sui generis model for the protection of traditional knowledge-related subject matter was developed jointly by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and WIPO in 1982 and is embodied in the UNESCO-WIPO Model Provisions for National Laws on the Protection of Folklore from Illicit Exploitation and Other Prejudicial Actions.

2. Strengthening and monitoring of existing instruments and applying sanctions in case of non-compliance

51. An instrument of prior informed consent should contain elements for assessing its practical effects and promoting observance of its terms.[53] To be able to notice violations of the rules on informed consent and benefit-sharing, a good monitoring system is necessary. Monitoring the implementation terms of access and benefit-sharing agreements is a difficult task, particularly in cases where benefits are long-term and product development occurs outside of the country of origin.

52. Enforcement requires not only the authority and ability to track activities and to collect information, but also the availability of sanctions. Contrary to the Convention on International Trade in Endangered Species of Wild Fauna and Flora,[54] dealing with the trade in or possession of endangered species of protected animals and plants, the Convention on Biological Diversity does not oblige States to penalize violations of the Convention. Sanctions for violations of procedures for prior informed consent and of access agreements would, however, facilitate implementation of the Convention on Biological Diversity. Reference can be made to another instrument of prior informed consent, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. That instrument defines "illegal traffic" in article 9 and creates obligations on parties to check such traffic and punish it through criminal sanctions. Taking the Basel Convention as an example, the following situations could be covered: export of genetic resources without any prior informed consent at all; export of genetic resources not obtained in compliance with the prior agreement; and forgery of export certifications confirming the correct acquisition of genetic material.

53. The Draft Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization[55] (prepared by the Ad Hoc Open-ended Working Group on Access and Benefit-sharing) include provisions on national monitoring and reporting, means for verification in user countries, settlement of disputes and remedies. Article 59, indicating that States may take "appropriate

effective and proportionate measures for violations of national legislative, administrative or policy measures implementing the access and benefit-sharing provisions of the Convention on Biological Diversity, including requirements related to prior informed consent and mutually agreed terms", is formulated purely as an option ("may"), not as an obligation. The same can be said for the provisions contained in regional instruments such as Decision 391 of the Andean Community[56] and the African model legislation.[57]

D. Involvement of organized criminal groups

54. No research findings or information on the involvement of organized criminal groups in illicit access to genetic resources has been found so far. The lack of evidence of such involvement may be due to the fact that the market is still developing in ways that are not yet fully realized. It could, however, be expected that, if there were a demand for such products that could not be met because of regulatory constraints, organized crime might step in to provide the supply.

IV. Concluding remarks

55. As far as illicit trafficking in protected species of wild fauna and flora is concerned, there are numerous ongoing or planned actions by the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora and by non-governmental organizations such as TRAFFIC. In November 2001, TRAFFIC, together with the Environmental Law Centre of the World Conservation Union, organized a workshop for representatives of European Union wildlife trade regulatory agencies, public prosecutors and non-governmental organizations to develop recommendations for improving the implementation of European Union Regulation No. 338/97. The workshop called for the development of sentencing guidelines, the establishment of enforcement networks and improved cooperation among enforcement agents. Initiatives taken at national and regional level can serve as an example for new actions at the international level. In order not to duplicate efforts by specialized organizations, further research by the Secretariat of the United Nations could concentrate on the involvement of organized criminal groups in the trafficking phenomenon.

56. Concerning illicit access to genetic resources, any further research will have to take into consideration the initiatives by the secretariat of the Convention on Biological Diversity and relevant organizations specialized in intellectual property rights.

Notes

[1] Trade Records Analysis in Flora and Fauna in Commerce (TRAFFIC) is the world's largest wildlife trade monitoring programme, with offices covering most parts of the world. It is a partnership between the World Wildlife Fund—World Wide Fund for Nature and the World Conservation Union and was established to monitor trade in wild plants and animals. It works in close collaboration with the secretariat of the Convention.

[2] "The project, having started in 1992, is currently in its third phase. The following progress has been made in the seven years since the project started: (a) the analysis and review (or update thereof), of the national legislation of 136 Parties has been carried out; (b) recommendations to suspend trade with some Parties for non-compliance have been undertaken; (c) concerning technical assistance provided to the Parties in the development of their national legislation, a package of technical support documents (checklist, models of law, questionnaires, guidelines) has been prepared by the Secretariat; and (d) a database incorporating the National Legislation Project findings, and other legal information, has been created by the Secretariat." See "Interpretation and implementation of the Convention—National laws for implementation of the Convention, National Legislation Project", document submitted by the secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) to the eleventh meeting of the Conference of the Parties, held in Nairobi from 10 to 20 March 2000 (Doc. 11.21.1), p. 1.

[3] See "Interpretation and implementation of the Convention—National laws ...", annex 2.

[4] See http://cites.org/eng/notifs/2001/047.shtml/

[5] http://www.wcoomd.org/ENF/CITES/BROCHE/27.htm

[6] http://www.interpol.int/Public/Publications/ICPR/ICPR481_1.asp

[7] See article 16 of Council of the European Union Regulation (EC) No. 338/97 of 9 December 1996.

[8] See article 4 of the Lusaka Agreement.

[9] See article 5, para. 9, of the Lusaka Agreement.

[10] Interpol, "Project PRIMATES. A strategic assessment of international wildlife crime", October 1999, p. 11, cited in Svend Soyland, "Criminal organizations and crimes against the environment—A desktop study" (United Nations Interregional Crime and Justice Research Institute, Rome, 2000), p. 29.

[11] United States Fish and Wildlife Service, 26 June 1998, cited in Soyland, "Criminal organizations ...", p. 28.

[12] Cited in Soyland, "Criminal organizations ...", p. 28.

[13] http://www.wcoomd.org/ENF//BROCHE/17.htm

[14] See http://www.planetark.org/dailynewsstory.cfm/newsid/13298/story.htm

[15] See http://www.planet-pets.com/petperiodicals/petperiod270.htm

[16] Data and information provided by TRAFFIC and by Soyland, "Criminal organizations ...". One example of a major German wildlife trade case is the FUNDACEF case, in which a German national was sentenced to three years' imprisonment in December 2000 for smuggling protected live animals for zoos and wildlife parks. Species included specimens listed in CITES appendix I, such as orang-utans, Javan gibbons, Komodo dragon and red-crowned cranes, and involved more than 25 countries. However, even though the prosecution stated that the case involved organized criminal activity, the prosecution charges on organized crime were dismissed.

[17] *Los Angeles Times*, 1995, cited in Soyland, "Criminal organizations ...", p. 29.

[18] The Xinhua News Agency, 5 July 1995, in E. Savona, "Recent trends of organized crime in Europe", working paper No. 18, Transcrim, research group on transnational crime, University of Trento (Trento, Italy, 1998), p. 67, cited in Soyland, "Criminal organizations ...", p. 33.

[19] S. Galster, ed., *Crime against Nature. Organised Crime and the Illegal Animal Trade. An investigative Report by the Endangered Species Project* (San Francisco, California, Earth Island Institute, 1996), cited in Soyland, "Criminal organizations ...", p. 39.

[20] Press release, United Kingdom Department of Environment, Transport and the Regions, 5 April 1998, cited in Soyland, "Criminal organizations ...", p. 36.

[21] Galster, *Crime against Nature* ..., cited in Soyland, "Criminal organizations ...", p. 32.

[22] P. Knights, ed., *From Forest to Pharmacy. Canada's Underground Trade in Bear Parts* (Investigative Network, 1995), cited in Soyland, "Criminal organizations ...", p. 35.

[23] Galster, *Crime against Nature* ..., cited in Soyland, "Criminal organizations ...", p. 29.

[24] Personal communication from the Endangered Species Project to Soyland, "Criminal organizations ...", p. 29.

[25] P. P. Kievit, "The worldwide illegal trade in endangered species of wild flora and fauna" (Netherlands, National Police Agency, Environmental Crime Unit, August 1998), cited in Soyland, "Criminal organizations ...", p. 29.

[26] See note 13 above.

[27] See also http://www.smuggled.com/repdru1.htm: "On 29 June 1993, drug enforcement agents at Miami Airport found 36 kilos of cocaine wrapped in condoms and stuffed into boa constrictors."

[28] "The trade in drugs and wildlife", http://www.awionline.org/wildlife/aa-trade.htm

[29] United Kingdom national report to the meeting of the Group of Eight held in June 1999, cited in Soyland, "Criminal organizations ...", p. 44.

[30] The case of Tony Silva shows the interesting story of a bird lover becoming a wildlife smuggler kingpin. He was an authority on protection and breeding of endangered species and condemned people putting their private interest before the survival of species in the wild. After several years of legally breeding birds, Silva began clandestine illegal breeding. Later, he also masterminded large-scale smuggling operations of animals such as endangered parrots and macaws from the Brazilian rainforest. Silva was at the outset charged on 16 counts of wildlife smuggling and one count of tax evasion. He pleaded guilty to one case of wildlife smuggling and tax evasion, and the subsequent charges were dropped. He was sentenced to almost seven years of imprisonment, ordered to pay a $100,000 fine and sentenced to do 200 hours of community service upon completion of his prison term. The smuggling operation was uncovered after a three-year investigation called "Operation Renegade", conducted by United States, New Zealand and Australian wildlife agents. In total, 38 wildlife smugglers were caught. The convictions added up to 47 years in prison and fines totalling $1 million. It is important to note that the targets for that smuggling operation were pet shops and wholesalers in the United States, and that the smugglers themselves apparently did not have direct access to end buyers. See *Outside Magazine*, May 1996, cited in Soyland, "Criminal organizations ...", p. 36.

[31] Information drawn from TRAFFIC Europe. "Eyes and Ears News WWF" (United Kingdom, January 1998), cited in Soyland, "Criminal organizations ...", p. 36.

[32] "Information: TRAFFIC Europe".

[33] According to the information given by Jose Carlos Araujo Lopes, who heads anti-trafficking efforts at the Brazilian Environmental and Renewable Natural Resources Institute (http://www.faunainc.org/article%20exotic%20pets.htm)

[34] See CITES, Doc SC.46.15, p. 15.

[35] See "Interpretation and implementation of the Convention—Enforcement—Review of alleged infractions and other problems of implementation of the Convention", document submitted by the CITES secretariat to the eleventh meeting of the Conference of the Parties, held in Nairobi from 10 to 20 March 2000 (Doc. 11.20.1), p. 5.

[36] http://www.biodiv.org/world/parties.asp.

[37] Access "shall be on mutually agreed terms" and "shall be subject to Prior Informed Consent".

[38] For a critical view, see Manuel Ruiz-Muller, "Regulating bioprospecting and protecting indigenous peoples knowledge in the Andean Community: Decision 391 and its overall impacts in the region", paper prepared for the United Nations Conference on Trade and Development Expert Meeting on Traditional Knowledge, held in Geneva in October and November 2000.

[39] See Ruiz-Muller, "Regulating bioprospecting ...", p. 17.

[40] Information drawn from the FAO Commission on Genetic Resources for Food and Agriculture.

[41] WIPO, "Exclusions from patent protection" (HL/CM/INF/1 Rev), cited in UNEP/CBD/COP/2/17, p. 5.

[42] See also article 9 of the African Model Legislation.

[43] Annex to the Final Act of the Uruguay Round of Trade Negotiations—Annex 1 c of the Marrakesh Agreement.

[44] http://www.twnside.org.sg/title/legal.htm

[45] http://www.caa.org.au/campaigns/election/globalisation/intellectual.html

[46] http://www.twnside.org.sg/title/whats.htm

[47] See article 12, para. 3 (d).

[48] See article 13, para. 2 (d) (ii).

[49] See UNEP/CBD/WG-ABS/1/4, p. 6, footnote 15 (input by Norway).

[50] See the third complementary provision to Decision 391. In addition, Decision 486 of the Andean Community relating to the patenting of traditional knowledge of indigenous and local communities establishes legal recourse that provides for "*nulidad absoluta*" of a patent in cases where prior informed consent of indigenous and local communities was not granted regarding the products or processes to be patented.

[51] See decision V/26 A, para. 15 (d).

[52] See also UNEP/CBD/WG-ABS/1/4, p. 8, and UNEP/CBD/WG8J/1/2.

[53] See UNEP/CBD/COP/2/13, p. 38 (annex II).

[54] In discussion of a proposal (at the Eleventh Conference of the Parties to CITES) to exempt "diagnostic samples" from permit requirements under the Convention, many parties expressed concern that the proposal would create a loophole under which "genetic resources" could be taken for commercial research (under the label "samples") without permits or other government oversight. That question will be investigated during the intersessional period by a working group, whose mandate includes a direct requirement of coordination with the secretariat of the Convention on Biological Diversity.

[55] UNEP/CBD/COP/6/6, pp. 24-25.

[56] Article 47 of Decision 391 of the Andean Community.

[57] Article 67 of the African Model Legislation.